Technology Education

What Is Technology Education?

Students enrolled in Technology Education study the relationships between technology and society through hands-on, problem-solving activities. For example, in the study of flight, students are asked to make model airplanes with adjustable flaps to help them understand aeronautical principles.

The "textbook" definition of Technology Education is that it is the study of technology and its effects on individuals, society, and civilization. Technology is defined as the systematic application of knowledge, materials, tools, and skills to extend human capabilities.

Technology Education is for all Michigan students in kindergarten through 12th grade. It places learning into practical, real-world contexts, such as medicine, manufacturing, transportation, and energy. As students improve their technological literacy, they begin to associate technology with a variety of careers and career choices, helping them to focus on a career pathway.

Is Technology Education Based on Standards?

Technology Education is based on standards that define what a student should know and be able to do to be technologically literate. These standards serve as a guide for developing curricula; however, they do not specify how teachers should conduct their laboratory-classrooms on a day-to-day basis.

The *Michigan Technology Content Standards and Benchmarks* and the national *Standards for Technological Literacy: Content for the Study of Technology* provide the foundation for Technology Education teaching and learning in Michigan.

Technology Education standards are important because so many public policy decisions involve technology issues. Effective democracy depends on all citizens participating in the decision-making process; a technologically literate population can help Michigan and our nation sustain economic progress.

What Is a Technology Education Curriculum?

Technology Education promotes each student's ability to become a curious, thinking, and doing individual. In the elementary school curriculum, Technology Education activities are offered in the context of mathematics, science, and language arts lessons. At the middle school and high school levels, courses in technology education, technology and design, and industrial technology provide students with opportunities to explore and apply technological knowledge and skills.

The goal of the Technology Education curriculum is to create technologically literate students who are able to:

- explore, evaluate, and use technology to accomplish, independently and cooperatively, real-world tasks
- develop knowledge, abilities, and responsibility in the use of resources, processes, and systems of technology
- acquire, organize, analyze, and present information
- solve problems, accomplish tasks, and express individual creativity
- apply legal and ethical standards

Why Is Technology Education Important?

Michigan is a manufacturing as well as an agricultural state. Our state is also developing other physical, bio-related, and information technology infrastructures. The manufacturing industries have changed dramatically as a result of increased competition and advanced technologies. The agricultural industry has also changed because of advancements in science and technology. Many of the industries that have seen major impacts in downsizing and reduction in workforce are able to produce more with less through the use of technology.

News jobs created during the 1980s highlight the move away from auto manufacturing to wholesale and retail trade. However, manufacturing remains the top area of employment in Michigan, while agriculture employs considerably fewer workers. Other areas of employment are service, retail trade, and government.

All careers in Michigan—manufacturing, health care, food production and processing, sales, construction trades, and many others—are impacted by technology. Physicians, engineers, office managers, retail clerks, mechanics, designers, cosmetologists, and law enforcement personnel, as examples, are becoming increasingly reliant on technological knowledge and abilities in order to succeed in their careers.

Technology Education provides a platform of technological literacy for success in both personal and career roles.

For Further Information

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